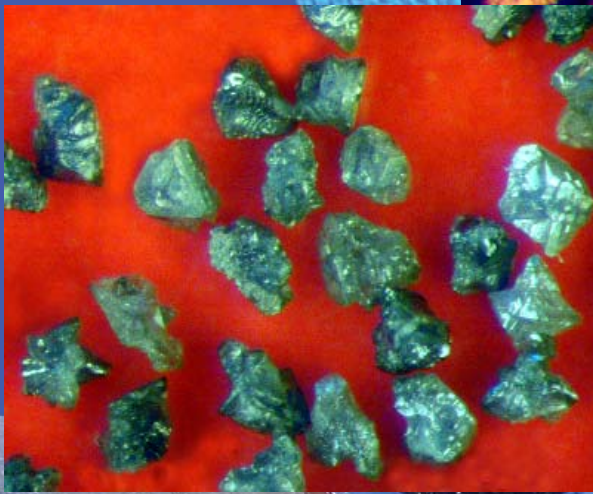
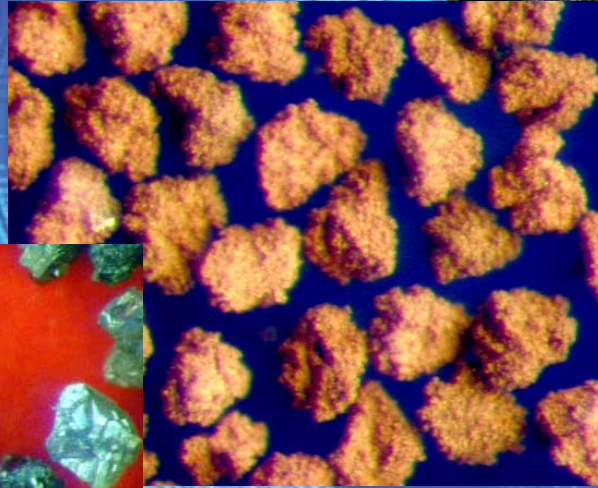
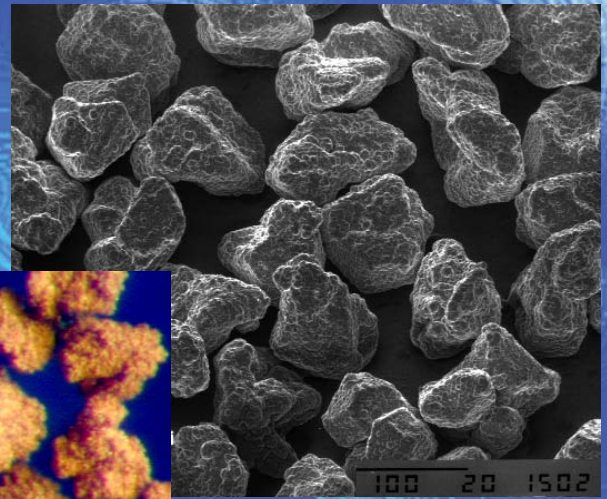


RESIN BOND DIAMOND

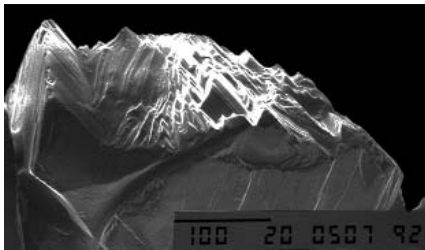




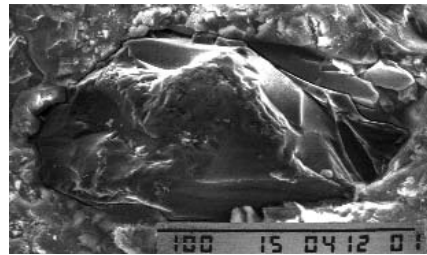
Resin Bond Diamond series

RBD – Resin Bond Synthetic Diamond with irregular shapes and rough surface area of crystals is the result of synthesis of soft diamond powders with fractured and slice-like structure. The specific feature of these types is the permanent renewal of cutting edges of crystal thanks to breaking away of small fragments.

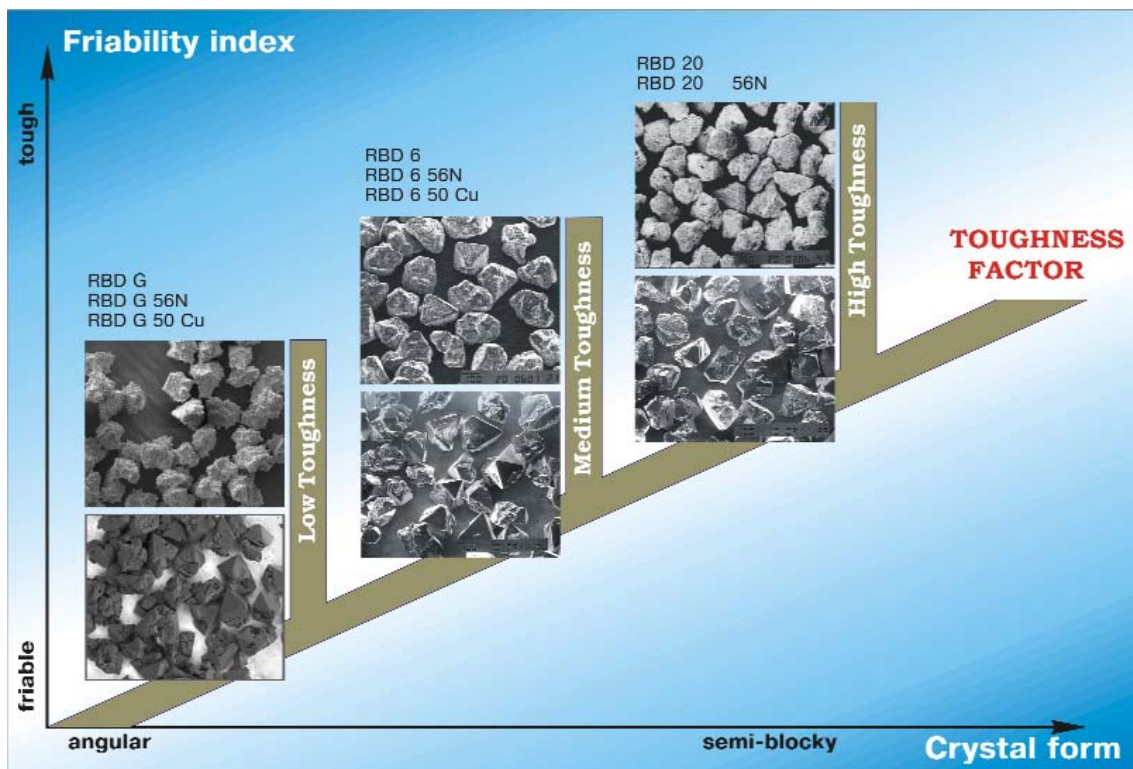
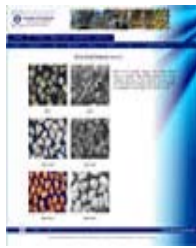
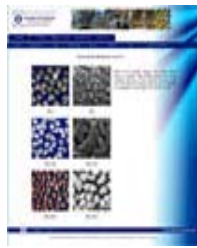
Diamond tools with Resin Bond Systems can be effectively used in dry or wet grinding of carbide-steel combinations, cemented tungsten carbides, PCD/PCBN tools and other hard materials.



Mosaic structure of crystal RBD 6



Single crystal RBD 6 in polyimide bond

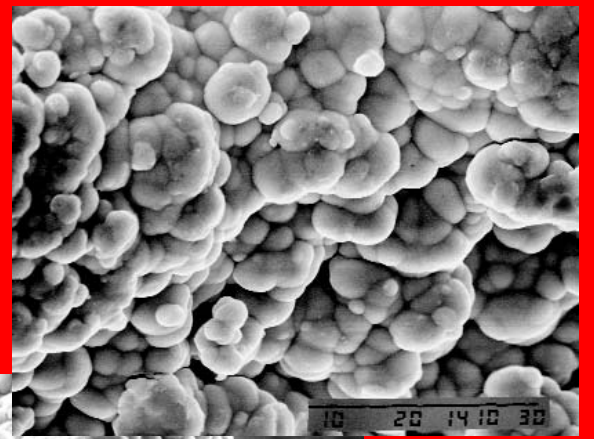


Electroless Nickel Coating

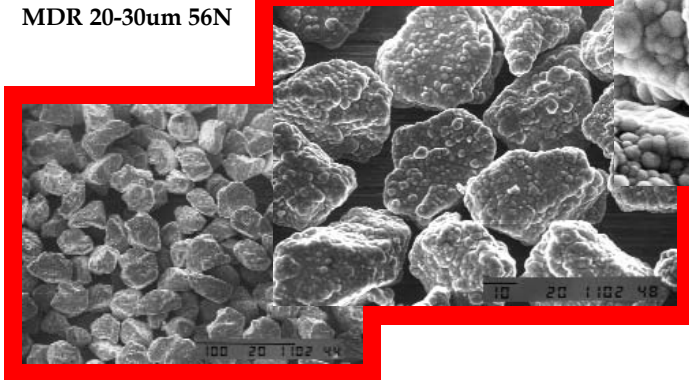
Durability and efficiency of abrasive tools is significantly dependant on firmness of grain strengthening in bond. That is why high adhesive characteristics of contact - "abrasive-bonding material", increases tool performance effectiveness.

Due to advanced surface of electroless nickel coating, crystals are well knit with bonds, which ensures firm retention of grains before complete deterioration during abrasive tool performance. During the electroless nickel cladding process, the surface of crystal is catalytically activated, thus the optimum adhesion between grains and nickel is reached.

It provides intensive heat deflection, emergent from working surface of grains during grinding process, while the coating of crystal itself aids to distribute temperature farther on the bond, which lowers general temperature of processing. Thus suggested coating significantly betters thermo-physical properties of tool.



MDR 20-30um 56N



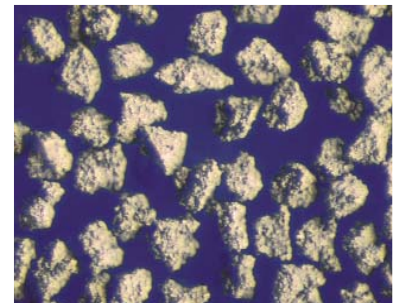
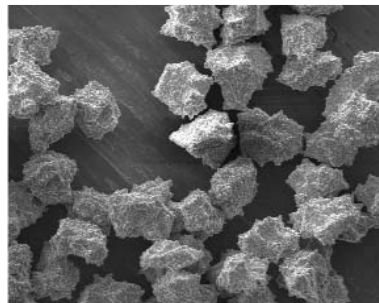
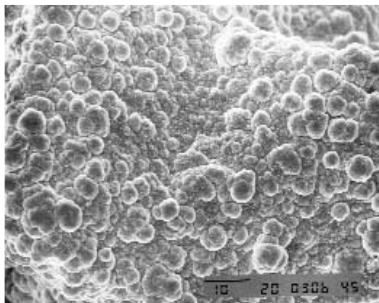
▲ x3500 *

◀ x2500

◀ x1000

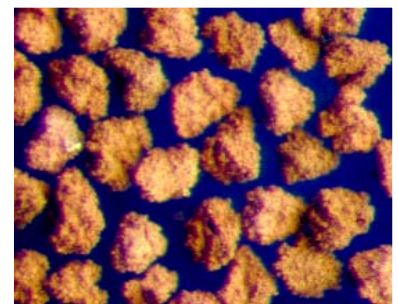
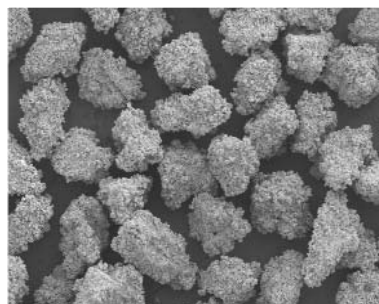
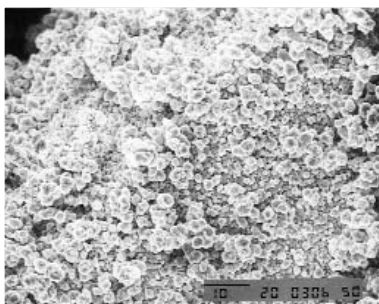
◀ x350

Electroless Nickel coating RBD G 56N

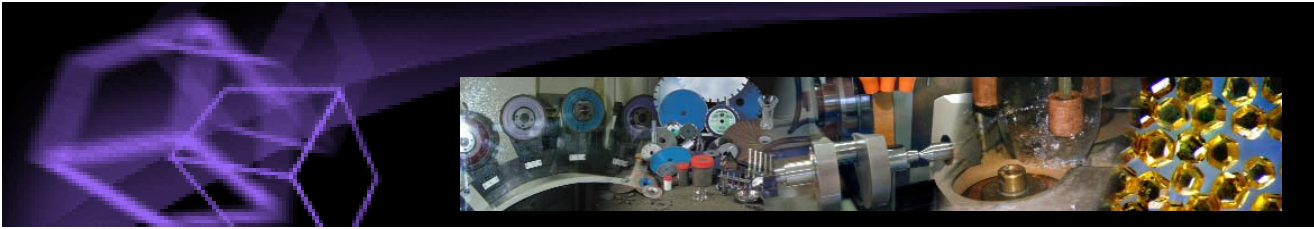


During the electroless nickel cladding process, the surface of crystal is catalytically activated, thus the optimum adhesion between the diamond and nickel is reached. The electroless nickel coating enhances the thermal properties of the tools. Superabrasive products are used with 56% or 60% coating of nickel alloy by total weight

Electroless Copper coating RBD 6 50Cu

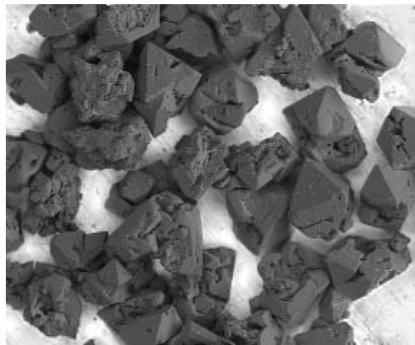
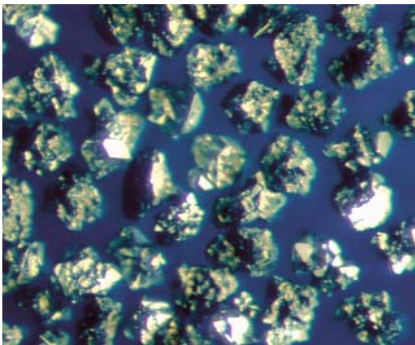


The electroless copper coating allows reaching the higher thermal conductivity and heat abstraction from the grinding zone. The tools, containing diamond powder with copper coating, are mostly used for dry grinding of cemented carbides. It is available with 50% of copper by total weight

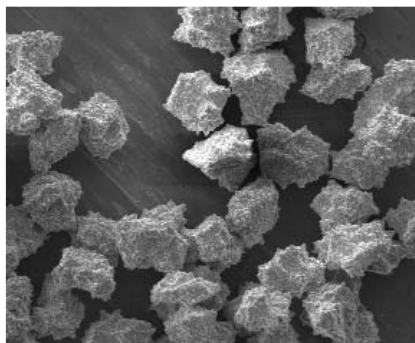
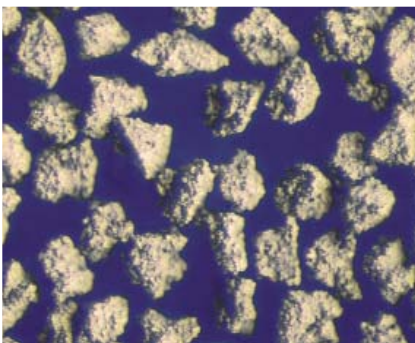


Resin Bond Diamond series G

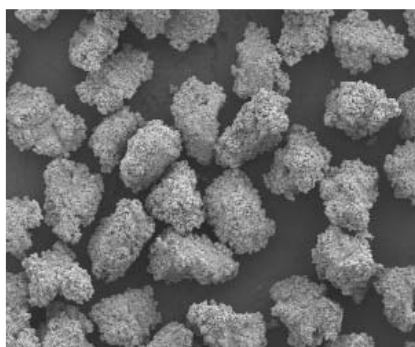
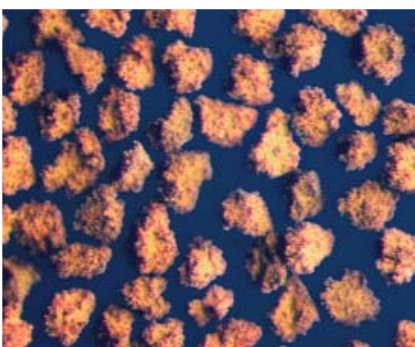
RBD G



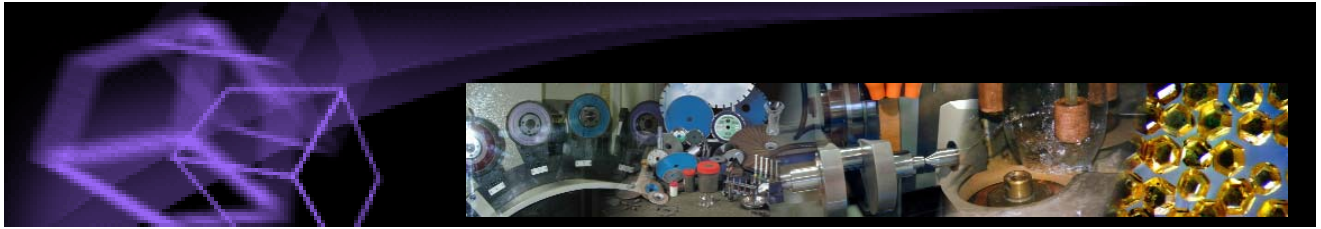
RBD G has irregular shapes and rough surface area of crystals. High friability along with micro-chipping structure of this abrasive ensures long-term and effective grinding with low forces applied.



RBD G 56N - is a powder with cover 56 % Nickel coating, by weight, applied to finishing grinding of parts from tungsten carbide, technical ceramics, cermets, in case of heightened requests to surface quality.

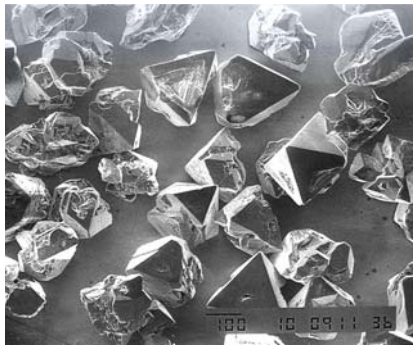
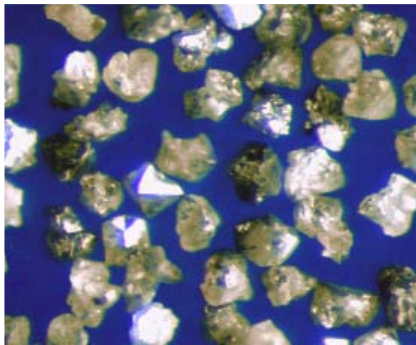


RBD G 50Cu - is a powder with cover 50 % Copper coating, by weight, for better thermo-physical properties of tool. These powders with Cu coated mostly used for dry grinding of cemented carbides.

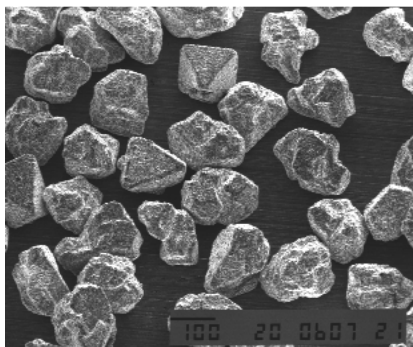
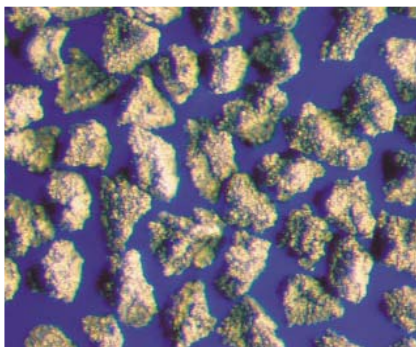


Resin Bond Diamond series 6

RBD 6

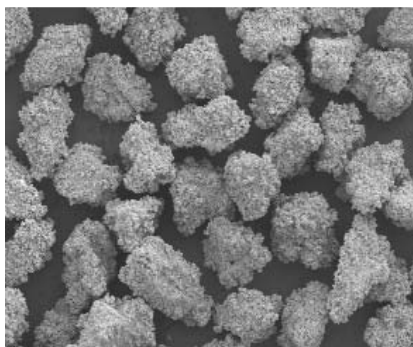
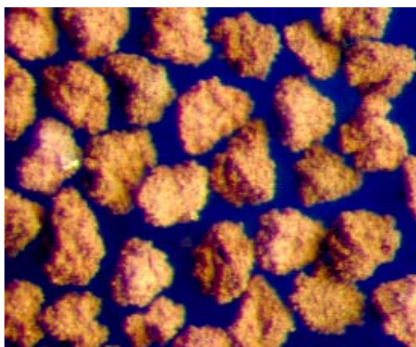


RBD 6 has more regular form and is tougher than RBD 4 and also has micro-chipping structure of crystal. Its specific friability ensures a durable performance by means of constant supply of new cutting edges. This product is recommended for manufacturing a wide range of high-performance resin tools with polyimide and phenolic bond systems.

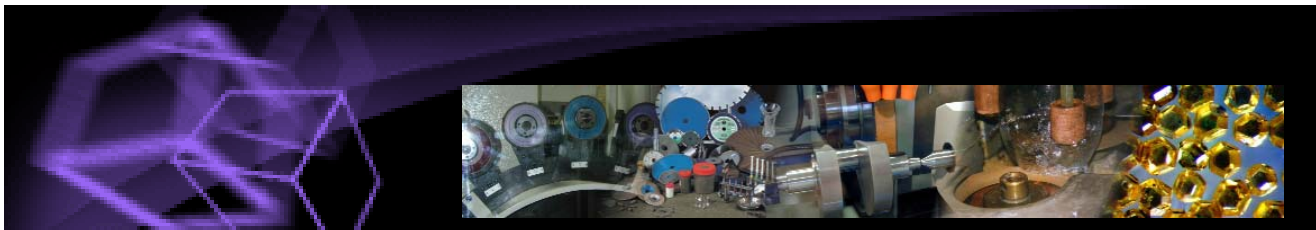


RBD 6 56N - is a powder with cover 56 % Nickel coating, by weight, the most popular powder of RBD series.

High adhesion in bond and optimal thermo-dissipation ensure high performance of RBD 6 56N at precision grinding of tungsten carbides, technical ceramics, cermet.

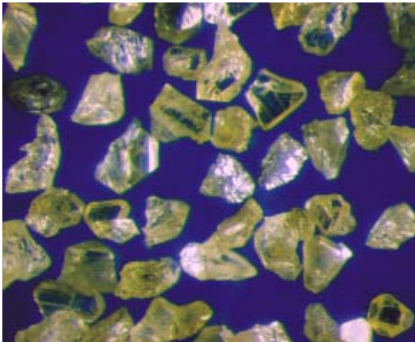


RBD 6 50Cu - is a powder with cover 50 % Copper coating, by weight, for better thermo-physical properties of tool. These powders with Cu coated mostly used for grinding of materials, where temperature control is important.

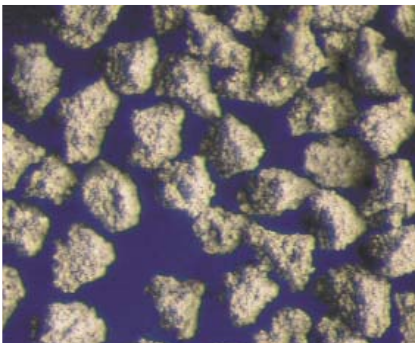


Resin Bond Diamond series 20

RBD 20



RBD 20 - is presented crystals of the semi-blocky form, with relatively high hardness. The average hardness RBD 20 series in 2 times is higher, than for RBD 6. The crystals of RBD 20 have good impact resistance. These qualities allow applying this powder in tools for rough-grinding with probable interrupted cut.



RBD 20 56N - is a powder with cover 56 % Nickel coating, by weight, for better thermo-physical properties of tool. Provides long tool life at grinding of carbide/steel combinations and PCD ware, with high material removal rates.

Table of size availability.

FEPA	ANSI MESH SIZE	RBD G	RBD G 56N	RBD G 50Cu	RBD 6	RBD 6 56N	RBD 6 50Cu	RBD 20	RBD 20 56N
D 301	50/60							✓	✓
D 252	60/80	✓	✓	✓	✓	✓	✓	✓	✓
D 181	80/100	✓	✓	✓	✓	✓	✓	✓	✓
D 151	100/120	✓	✓	✓	✓	✓	✓	✓	✓
D 126	120/140	✓	✓	✓	✓	✓	✓	✓	✓
D 107	140/170	✓	✓	✓	✓	✓	✓	✓	✓
D 91	170/200	✓	✓	✓	✓	✓	✓	✓	✓
D 76	200/230	✓	✓	✓	✓	✓	✓	✓	✓
D 64	230/270	✓	✓	✓	✓	✓	✓	✓	✓
D 54	270/325	✓	✓	✓	✓	✓	✓	✓	✓
D 46	325/400	✓	✓	✓	✓	✓	✓	✓	✓
Bond System ▶		R V	R	R	R V	R	R	R V	R

V - Vitreous

R - Resin



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